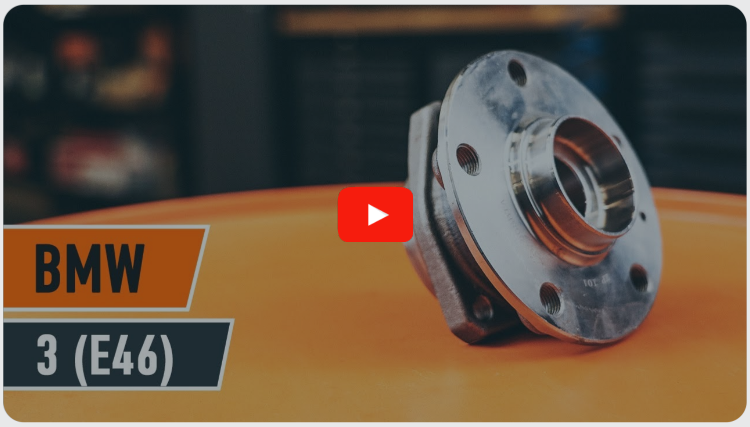
AUTODOC CLUB

How to change front wheel bearing on **BMW E46** – replacement guide

VIDEO TUTORIAL



Important!

This replacement procedure can be used for:
BMW 3 Saloon (E36) 316i 1.6, BMW 3 Saloon (E36) 318i 1.8, BMW 3 Saloon (E36) 318is 1.8, BMW 3 Coupe (E36) 318is 1.8, BMW 3 Saloon (E36) 320i 2.0, BMW 3 Coupe (E36) 320i 2.0, BMW 3 Saloon (E36) 325i 2.5, BMW 3 Coupe (E36) 325i 2.5, BMW 3 Saloon (E36) 325td 2.5, BMW 3 Saloon (E36) 325tds 2.5, BMW 5 Saloon (E34) 520i 2.0 24V, BMW 5 Saloon (E34) 524td 2.5, BMW 5 Saloon (E34) 525i 2.5 24V, BMW 5 Saloon (E34) 525iX 2.5 24V, BMW 5 Saloon (E34) 525tds 2.5, (+ 141)

The steps may slightly vary depending on the car design.

REPLACEMENT: WHEEL BEARING – BMW E46. TOOLS YOU'LL NEED:



- Wire brush
- WD-40 spray
- Brake cleaner
- Copper grease
- Drive socket # 16
- Drive socket # 46
- HEX bit No.H6.
- HEX bit No.H7.
- Wheel impact socket #17
- Ratchet wrench
- Torque wrench
- Tap wrench
- Hammer
- Pin punch
- Flat Screwdriver
- Crow bar
- Wheel chock

BUY TOOLS

Replacement: wheel bearing – BMW E46. Professionals recommend:

- Do not re-use the bearing assembly of your AUDI A4 B6 car.
- The wheel hub bearing replacement procedure is identical for both wheels on the same axle.
- Warning! Shut down the engine before starting any work – BMW E46.

CARRY OUT REPLACEMENT IN THE FOLLOWING ORDER:

1 Secure the wheels with chocks.



2 Loosen the wheel mounting bolts. Use wheel impact socket #17.

3 Raise the front of the car and secure on supports.



4 Unscrew the wheel bolts.



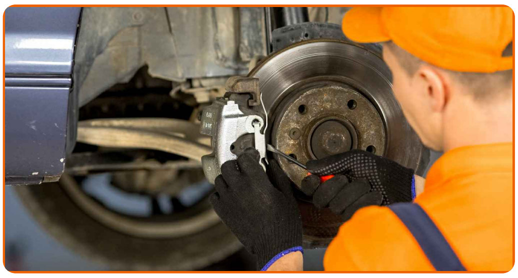
Replacement: wheel bearing – BMW E46. AUTODOC recommends:

- To avoid injury, hold up the wheel when unscrewing the bolts.

5 Remove the wheel.



6 Detach the brake caliper retaining spring. Use a flat screwdriver.



7 Remove the dust boot caps of the brake caliper guide pins. Use a flat screwdriver.



8 Clean the brake caliper fasteners. Use a wire brush. Use WD-40 spray.

9 Unscrew the brake caliper fastening. Use HEX No.H7. Use a ratchet wrench.



10 Spread the brake pads. Use a crowbar.



11 Remove the brake caliper.



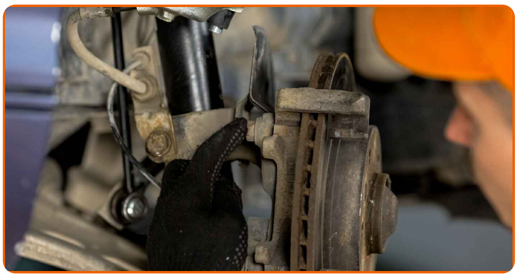
Replacement: wheel bearing – BMW E46. Tip from AUTODOC experts:

- Tie the caliper to the suspension or to the body with a wire without disconnecting from the brake hose to prevent depressurization of the brake system.
- Make sure that the brake caliper is not hanging on the brake hose.
- Don't press the brake pedal after the brake caliper has been removed. As a result, the piston can fall out from the brake cylinder, and brake fluid leakage and depressurization of the system may occur.
- Check the brake caliper bracket, brake caliper guide pins and boots. Clean them. Replace, if necessary.

12 Remove the brake pads.



13 Clean the brake caliper bracket fasteners. Use a wire brush. Use WD-40 spray.



14

Unscrew the caliper bracket fastening. Use a drive socket #16. Use a ratchet wrench.



15

Remove the caliper bracket.



16

Clean the brake disc fasteners. Use a wire brush. Use WD-40 spray.

17

Unscrew the brake disc fastening. Use HEX No.H6. Use a ratchet wrench.

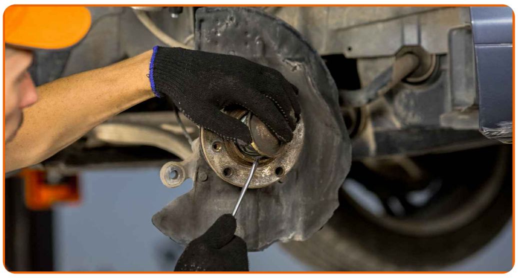


18

Remove the brake disc.

19

Remove the hub bearing protection cap. Use a flat screwdriver. Use a hammer.



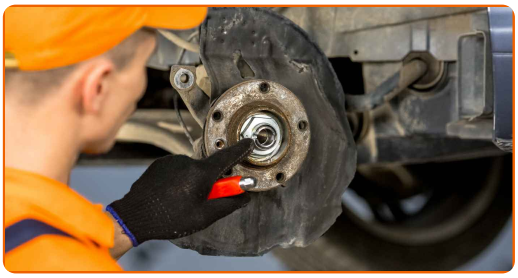
Please note!

- Some cars are not equipped with wheel hub caps.

20 Unstake the wheel hub retaining nut. Use a flat screwdriver. Use a hammer.



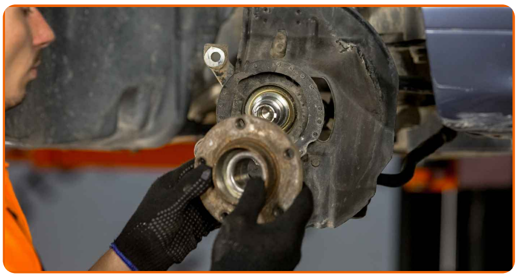
21 Clean the fasteners of the wheel hub bearing. Use a wire brush. Use WD-40 spray.



22 Unscrew the hub bearing mounting. Use a drive socket #46. Use a tap wrench.



23 Remove the hub and the bearing together, since they are a sealed unit.



24 Clean the hub bearing mounting seat. Use a wire brush. Use WD-40 spray.

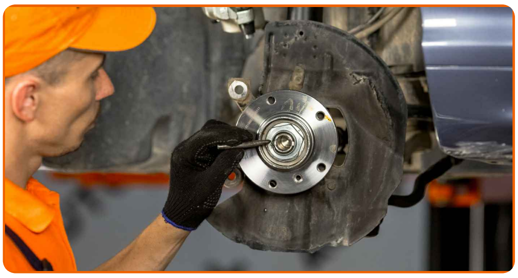
25 Install the new wheel hub with a bearing. Use a hammer.



26 Tighten the fastener of the wheel hub bearing. Use a drive socket #46. Use a torque wrench. Tighten it to 290 nm torque.



27 Restake the wheel hub retaining nut. Use a pin punch. Use a hammer.



28 Install the hub bearing protection cap. Use a hammer.



29 Treat the hub where it contacts the brake disk. Use copper grease.

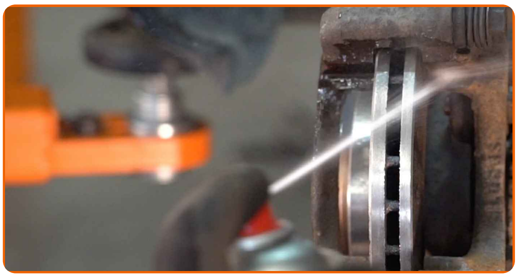
30 Install the brake disc.



31 Tighten the brake disc fastening. Use HEX No.H6. Use a torque wrench. Tighten it to 9 Nm torque.



32 Clean the brake caliper bracket from dirt and dust. Use a wire brush. Use a brake cleaner.



AUTODOC recommends:

- Replacement: wheel bearing – BMW E46. After applying the spray, wait a few minutes.

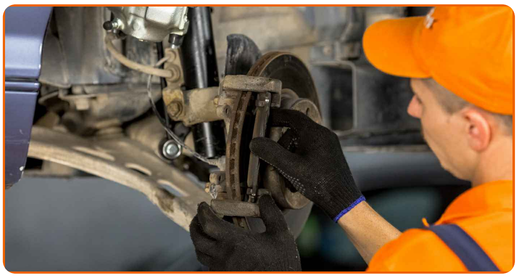
33 Install the brake caliper bracket.



34 Tighten the brake caliper bracket. Use a drive socket #16. Use a torque wrench. Tighten it to 110 Nm torque.



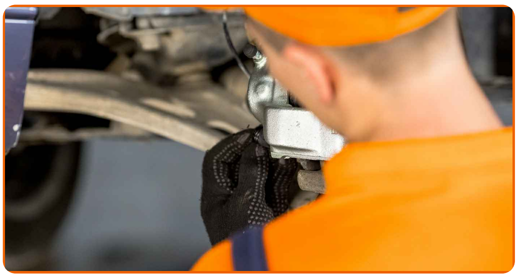
35 Install the brake pads.



36 Install the brake caliper and fix it. Use HEX No.H7. Use a torque wrench. Tighten it to 30 Nm torque.



37 Install the dust boot caps of the brake caliper guide pins.



38 Install the brake caliper retaining spring. Use a flat screwdriver.



39 Treat the shock strut fasteners. Use copper grease.

40 Treat the surface where the brake disc contacts the wheel rim. Use copper grease.



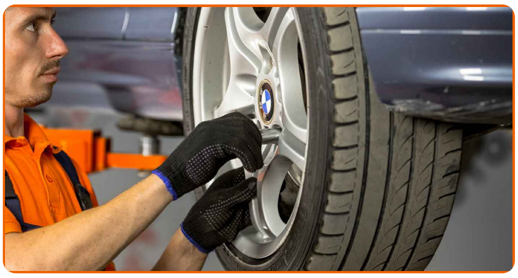
41 Clean the brake disk surface. Use a brake cleaner.



Replacement: wheel bearing – BMW E46. Tip from AUTODOC:

- After applying the spray, wait a few minutes.

42 Install the wheel.



AUTODOC recommends:

- Warning! To avoid injury, hold the wheel while screwing in the fastening bolts on the car. BMW E46

43 Screw in the wheel bolts. Use wheel impact socket #17.



44 Lower the car and working in a cross order, tighten the wheel bolts. Use wheel impact socket #17. Use a torque wrench. Tighten it to 120 nm torque.



45

Remove the jacks and chocks.



WELL DONE!

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